

# Nika

## PROJECT: GEAR5

Group 10

**Team Leader:**

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**Members:**

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Francisco Santos, N01423860

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# Our Project

Our project aims to create a retro gaming device that integrates the past and present in an all in one system that users can experience. This system can be played physically via console and wireless through our mobile app. Our app allows users to share/store information via cloud and access virtual currency as tokens to play as if it were an arcade.

## Student Names & IDs

Name	Id	Signature	Effort
Ralph Robes	N01410324	<i>Ralph Robes</i>	100
Francisco Santos	N01423860	<i>Francisco Santos</i>	100
Pradeep Singh	N00975892	<i>Pradeep Singh</i>	100
Elijah Tanimowo	N01433560	<i>Elijah Tanimowo</i>	100

## Github Repo Link

<https://github.com/RalphRobes0324/Nika.git>

## Credentials

Username: admin

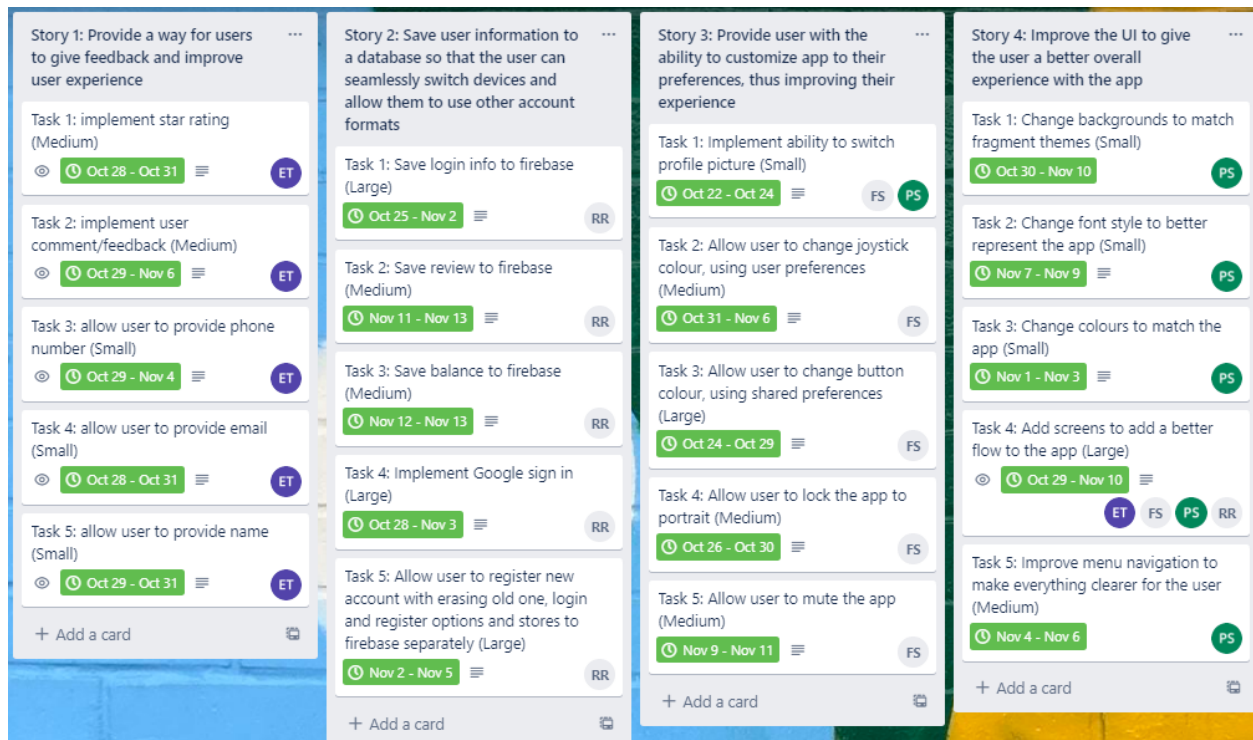
Password: admin

# Sprint

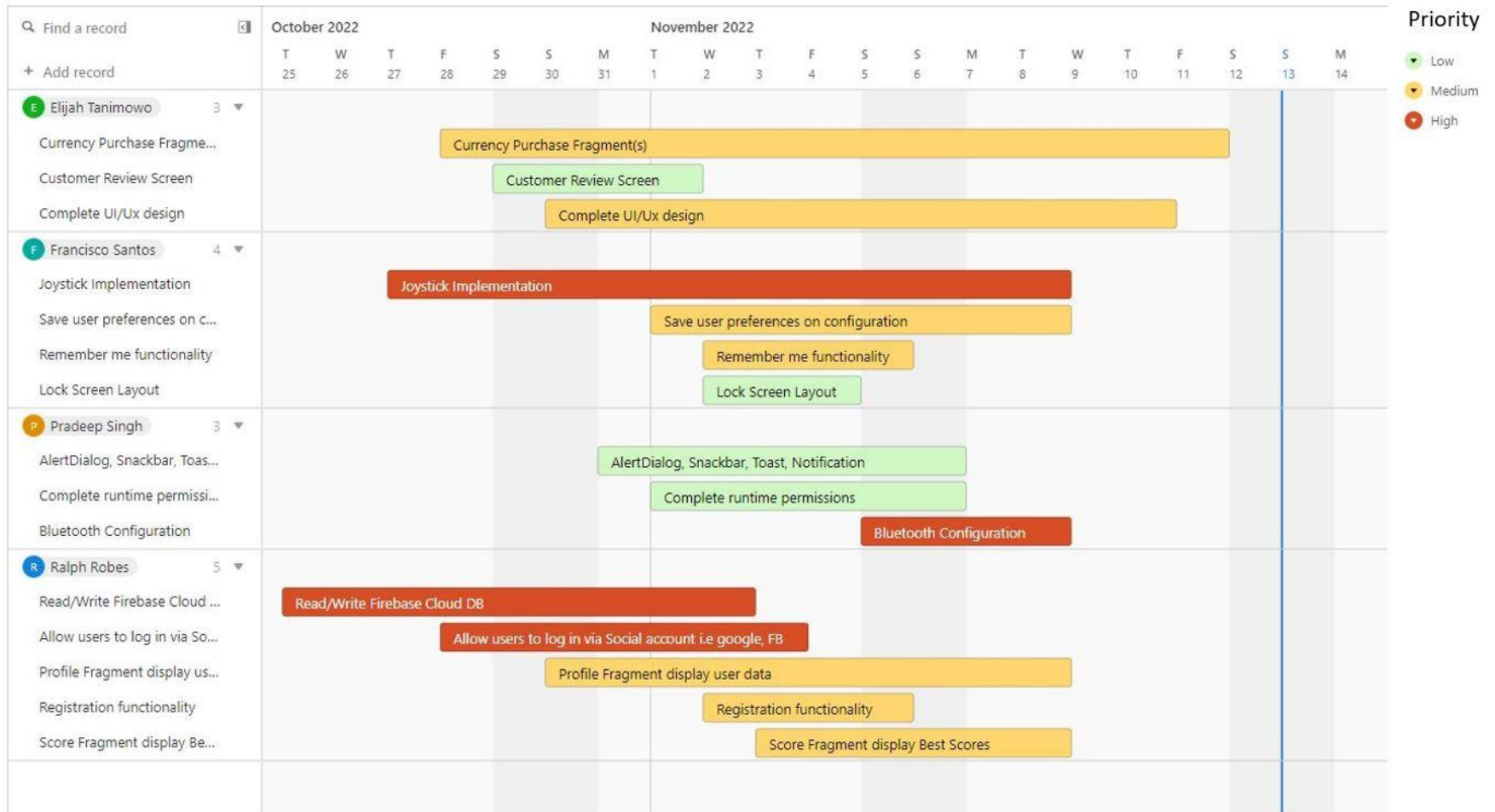
## Sprint Goals

- Create a review page
- Allow the user to create and login to an account
- Allow the user to login with google
- Add joystick functionality
- Add functionality to the settings fragment so user can modify to their preferences
- Update our backgrounds
- Update the menus
- Add animations to the splash screen

## Sprint Dashboard




# Gantt Chart



<input type="checkbox"/>	A Task	Assigned	Priority	Start date	End date	Status
1	Read/Write Firebase Cloud DB	R Ralph Robes	High	25 October, 2022	2 November, 2022	Done
2	Allow users to log in via Social account i.e google, FB	R Ralph Robes	High	28 October, 2022	3 November, 2022	Done
3	Joystick Implementation	F Francisco Santos	High	27 October, 2022	8 November, 2022	Done
4	Bluetooth Configuration	P Pradeep Singh	High	5 November, 2022	8 November, 2022	Done
5	Currency Purchase Fragment(s)	E Elijah Tanimowo	Medium	28 October, 2022	11 November, 2022	Done
6	Complete UI/Ux design	E Elijah Tanimowo	Medium	30 October, 2022	10 November, 2022	Done
7	Profile Fragment display user data	R Ralph Robes	Medium	30 October, 2022	8 November, 2022	Done
8	Score Fragment display Best Scores	R Ralph Robes	Medium	3 November, 2022	8 November, 2022	Done
9	Save user preferences on configuration	F Francisco Santos	Medium	1 November, 2022	8 November, 2022	Done
10	Registration functionality	R Ralph Robes	Medium	2 November, 2022	5 November, 2022	Done
11	Remember me functionality	F Francisco Santos	Medium	2 November, 2022	5 November, 2022	Done
12	AlertDialog, Snackbar, Toast, Notification	P Pradeep Singh	Low	31 October, 2022	6 November, 2022	Done
13	Complete runtime permissions	P Pradeep Singh	Low	1 November, 2022	6 November, 2022	Done
14	Lock Screen Layout	F Francisco Santos	Low	2 November, 2022	4 November, 2022	Done
15	Customer Review Screen	E Elijah Tanimowo	Low	29 October, 2022	1 November, 2022	Done

## Daily Standup Sprint 1

Daily Standup - October - November 2022

Pradeep Singh 

...

What did you work on yesterday?

Saving photo on profile fragment from gallery.

What will you work on today?

Change the layout and fonts for Profile Fragment.

Any blockers?

I could not get the picture to save, I'm having trouble trying to save not sure If I am converting the image from bitmap to string properly.

Francisco Santos 

...

What did you work on yesterday?


UI Updates and generally making the App more user-friendly and modern

What will you work on today?

Joystick Implementation on Play Fragment

Any blockers?

Issues implementing functionality to play fragment that would change joystick button color

Ralph Robes 

...

What did you work on yesterday?


I rebuild Login and Registration of the app.

What will you work on today?

Building Forgot password system in the App

Any blockers?

Finding parent ID from a child ID

Elijah Tanimowo 

...

What did you work on yesterday?

Creating fragments, icons and images to be used for various upcoming parts of the app.

What will you work on today?


Created a review fragment that allows user to give comment, personal information and a star rating.

Any blockers?

No blockers so far.

## Daily Standup Sprint 2

Daily Standup - October - November 2022

Pradeep Singh 

...

What did you work on yesterday?

Implemented the bluetooth fragment and connectivity

What will you work on today?

Fixing errors within the Bluetooth code and add functionality to allow device to be discoverable

Any blockers?

Currently no blockers at the moment.

Francisco Santos 

...

What did you work on yesterday?

Settings Fragment functionality and sharedPreferences

What will you work on today?

Settings Fragment functionality and sharedPreferences

Any blockers?

No issues relating to UI updates

Ralph Robes 

...

What did you work on yesterday?


Completed Forgot Password and little bit of Google SignIn

What will you work on today?

Completing Google SignIn

Any blockers?

Google Application won't appear on the app

Elijah Tanimowo 

...

What did you work on yesterday?

Fixed up the review screen to look proper and send a toast message when the user clicks submit.

What will you work on today?

I will create the balance/currency screen so that the user may add to their personal balance with the in app currency.


Any blockers?

Minor issues getting the formatting to look right.



## Daily Standup Sprint 3

Daily Standup - October - November 2022

Pradeep Singh 

...

What did you work on yesterday?


Fixed runtime permissions on Bluetooth connection. Warnings were in effect due to lack of permissions.

What will you work on today?

Add notification to app through Bluetooth connectivity to warn users about device visibility.

Any blockers?

Intent and granting permissions is currently having issues, resolution is in progress.

Francisco Santos 

...

What did you work on yesterday?


Joystick Implementation on Play Fragment

What will you work on today?

Fixing up Errors and refining code, making it look nicer through UI updates and removing warnings

Any blockers?

No issues

Ralph Robes 

...

What did you work on yesterday?


Google Sign In and assisting redesigning Profile Fragment

What will you work on today?

Able to store user reviews in Firebase, able to update user currency if purchase and leaderboard

Any blockers?

Understanding how to organize user score.

Elijah Tanimowo 

...

What did you work on yesterday?

Finished creating the general currency/balance screen, which allows the user to add currency and shows alert boxes.

What will you work on today?

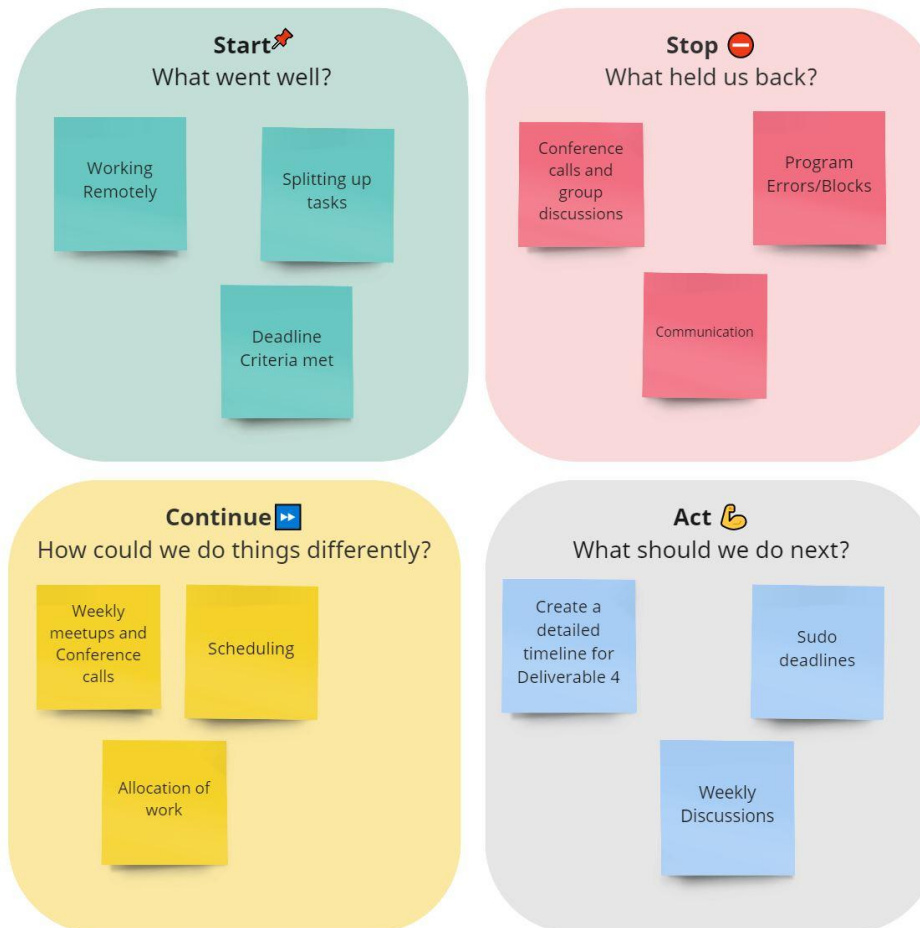
I will convert various fragments and screens into landscape so that they comply with the requirement of having both portrait and landscape.

Any blockers?

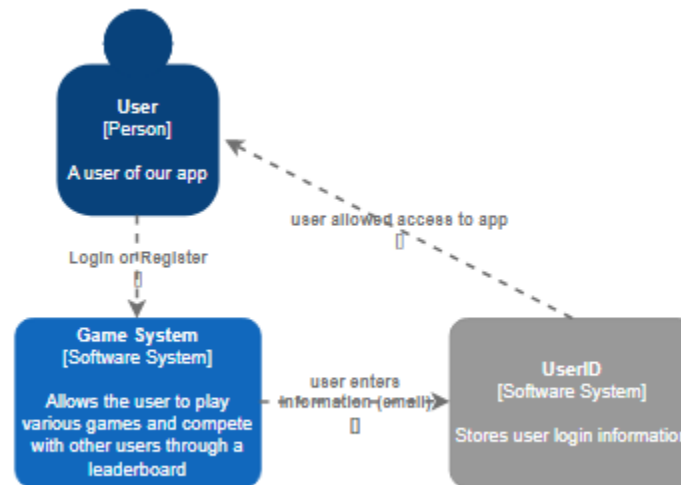
No blockers so far.

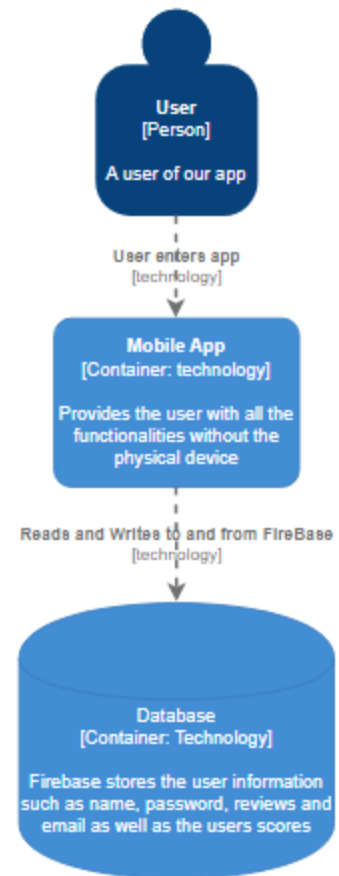
# Sprint Retrospective

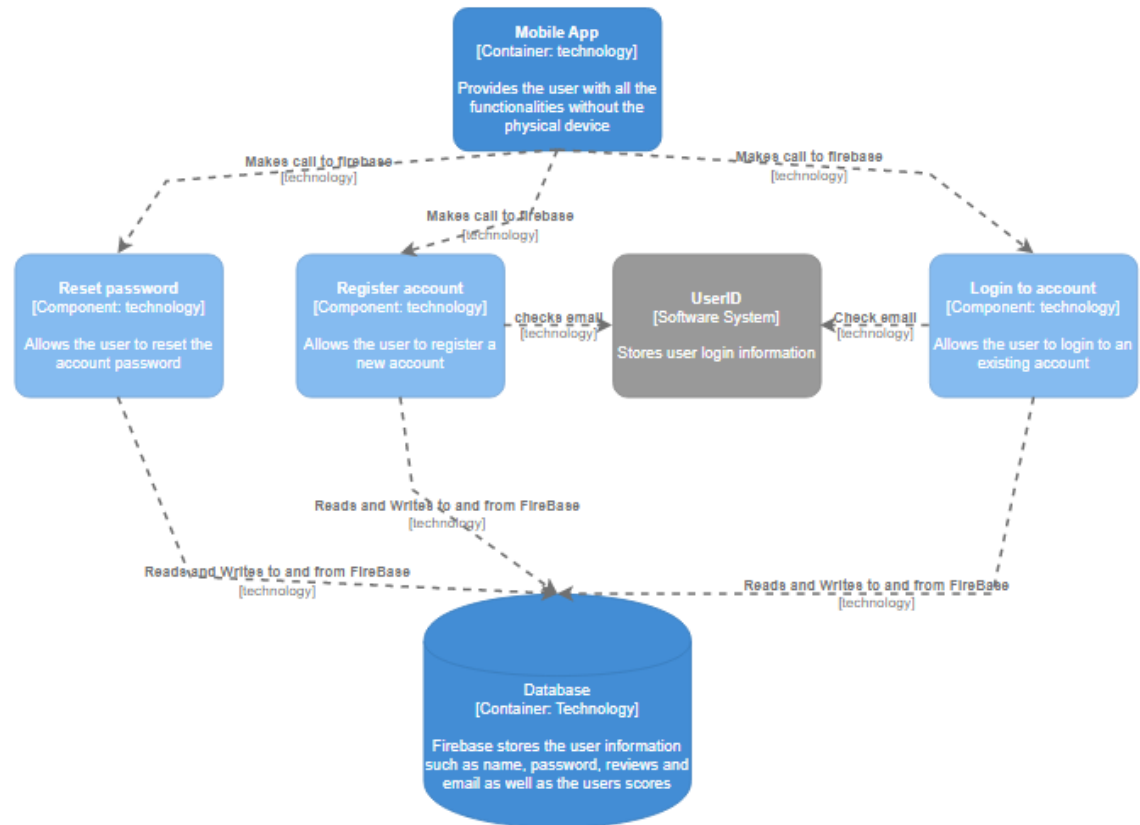
## Nika

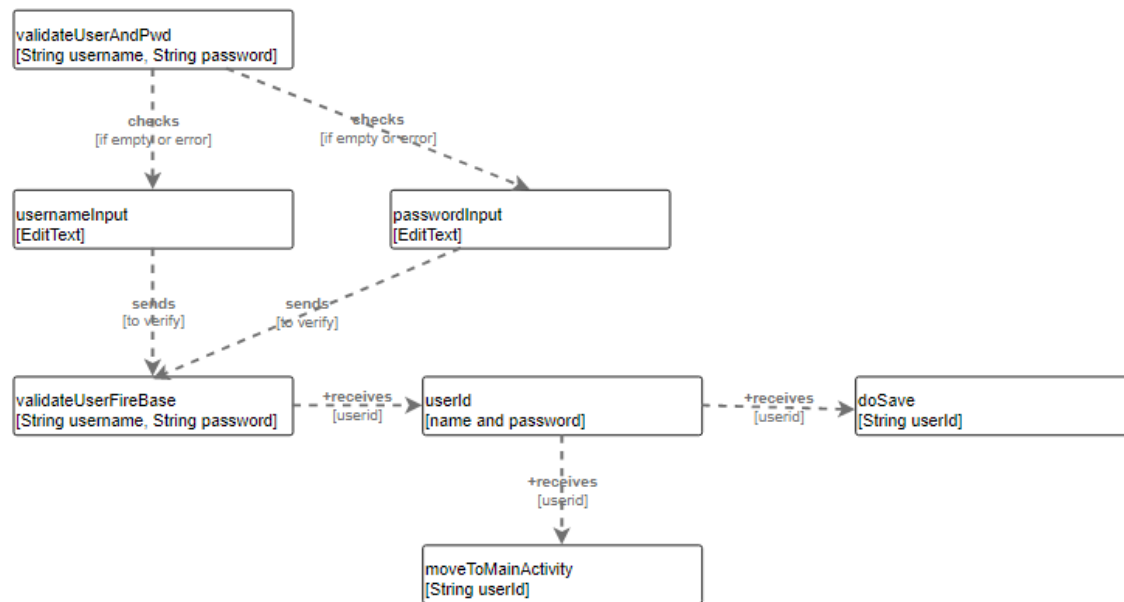


## System Context Diagram (C4 Model)









# Design

## Design Principles

In our app we used two different design principles in order to make it more professional and overall better results. These principles are KISS(Keep it Simple and Stupid) and Single Responsibility. We utilized KISS as we are in a group of four and keeping everything as simple as possible makes it so we can work on coding that someone else started without being too confused about what they are trying to accomplish and what they have done so far. We also used Single Responsibility to keep everything organized. This is clearly displayed through our login/register pages, as we split it among multiple screens and fragments rather than having it all be in one giant fragment.

## Design Patterns

In our app we used two different design patterns to add a natural flow and overall structure to our design. The two patterns we used were command design patterns and creational patterns for the builder, in which we had an alert dialog that gave the user some text along with a title, message, and option to click OK for example. We also made use of the command design pattern

# Coding Work Progress

## Runtime Permission

```
<uses-permission android:name="android.permission.READ_EXTERNAL_STORAGE" />
<uses-permission android:name="android.permission.BLUETOOTH" />
<uses-permission android:name="android.permission.BLUETOOTH_ADMIN" />
<uses-permission android:name="android.permission.ACCESS_COARSE_LOCATION"/>
<uses-permission android:name="android.permission.BLUETOOTH_ADVERTISE" />
<uses-permission android:name="android.permission.BLUETOOTH_CONNECT" />
<uses-permission android:name="android.permission.BLUETOOTH_SCAN" />
<uses-permission android:name="android.permission.INTERNET" />
<uses-permission android:name="android.permission.CAMERA" />
```



## Customer Review Screen Storage

```
reviews
├── adminGEAR1
│   ├── overall: "100.0%"
│   ├── userComment: "App is fun to use!!! I love using it!"
│   ├── userEmail: "FranSan_tos@hotmail.com"
│   ├── userName: "Francisco"
│   └── userPhone: "6476373847"
├── adminGEAR2
│   ├── overall: "90.0%"
│   ├── userComment: "Me and my friend just love using this app! We have a great time together."
│   ├── userEmail: "wildwildjustin@gmail.com"
│   ├── userName: "Justin"
│   └── userPhone: "6376473487"
├── adminGEAR3
│   ├── overall: "80.0%"
│   ├── userComment: "This app has cool customization options."
│   └── userName: "Shepherd"
├── adminGEAR4
│   ├── overall: "100.0%"
│   ├── userComment: "I spent all my money on this app and now I don't have enough money for food."
│   ├── userEmail: "n01423860@humbermail.ca"
│   └── userName: "Isaac"
├── adminGEAR5
│   └── overall: "100.0%"
└── adminGEAR6
    ├── overall: "90.0%"
    ├── userComment: "Enjoyed how well the app flowed and was able to play games seamlessly :) would recommend!"
    ├── userEmail: "peter48@gmail.com"
    └── userName: "Peter"
```